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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,015	12/29/2003	Yong Chul Kim	060450.000010	8415

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EXAMINER	
ELVE, MARIA ALEXANDRA	

ART UNIT	PAPER NUMBER
1793	

MAIL DATE	DELIVERY MODE
03/21/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/749,015	KIM ET AL.	
	Examiner	Art Unit	
	M. Alexandra Elve	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 2* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 2* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 & 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Claussen (USPN 3,418,446).

Claussen discloses a welding wire for gas shielded arc welding. The flux cored electrode is constructed from a hollow steel sheath, which is initially flat and then formed into a channel shape. The strip is then filled, butt welded and drawn down by dies. The content of the electrode is particulate or granular form. Optimum fill of the electrode is 16% by weight; however, some wires are further filled with silica sand that is they are more greatly packed. The strength difference between the less packed and more packed (silica sand addition) is: 81/78 yielding a ratio of about 1.1.

Claussen does not teach the equation (1) in applicant's claim. The electrode disclosed by Claussen posses all the properties applicant attributes to the electrode.

Although the prior art does not teach the equation claimed, it does disclose the electrode and the approximate ratio. It has been held that there is no invention in the discovery of a general formula if it covers a product described in the prior art. See In re Cooper et al. 57 USPQ 117.

The exact ratio, as taught by Applicant's claim is not disclosed in the prior art, however, the prior art closely approximates applicant's claimed ratio. It has been held that one of ordinary skill in the art at the time of the invention would have considered that ratio to be obvious because close approximation is considered to establish a prima facie case of obviousness. See In re Malagari 182 USPQ 549, Titanium Metals v. Banner 227 USPQ 773, In re Nehrenberg 126 USPQ 383.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al. (USPN 6,649,872).

Kato et al. discloses a flux cored electrode, which is constructed of a steel sheath formed into a U-shape, filled and drawn. Fill percentages are shown in table 4 and corresponding strengths in table 10. The maximum strength ratio is: 582/524 yielding a ratio of 1.1.

Kato et al. does not teach the equation (1) in applicant's claim. The electrode disclosed by Kato et al. posses all the properties applicant attributes to the electrode.

Although the prior art does not teach the equation claimed, it does disclose the electrode and the approximate ratio. It has been held that there is no invention in the discovery of a general formula if it covers a product described in the prior art. See In re Cooper et al. 57 USPQ 117.

The exact ratio, as taught by Applicant's claim is not disclosed in the prior art, however, the prior art closely approximates applicant's claimed ratio. It has been held that one of ordinary skill in the art at the time of the invention would have considered

that ratio to be obvious because close approximation is considered to establish a prima facie case of obviousness. See In re Malagari 182 USPQ 549, Titanium Metals v. Banner 227 USPQ 773, In re Nehrenberg 126 USPQ 383.

The prior art discloses a product substantially similar to the claimed product, differing only in the manner by which it is produced. It has been held that one of ordinary skill in the art at the time of the invention would have considered the claimed compositions to be obvious because of the similarity in the properties and closely approximating ranges. The burden falls to the applicant to show that any process steps associated with the claimed product result in a materially different product from those of the prior art, because there is nothing in the record before the examiner to reasonably conclude that applicant's product differs in kind from those obtained by the reference. See In re Brown 173 USPQ 685 and In re Fessmann 180 USPQ 324.

Response to Arguments

Applicant's arguments filed 12/19/07 have been fully considered but they are not persuasive.

Applicant argues that the prior art does not teach compositions or controlling the compositions. The examiner respectfully points out that instant claims are product claims and hence processing limitations do not bear weight with respect to patentability. Furthermore, compositions are not disclosed in applicant's claims. In response to

applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., compositions) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues that the flux core wire contains rutile, manganese and so forth which is not in the prior art. The examiner respectfully notes: In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., rutile, manganese and so forth) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues that the ratio of tensile strength during the manufacturing process yields a new product. The examiner respectfully notes that instant claims are product claims and hence processing limitations do not bear weight with respect to patentability. Although the prior art does not teach the equation claimed, it does disclose the electrode and the approximate ratio. It has been held that there is no invention in the discovery of a general formula if it covers a product described in the prior art. See In re Cooper et al. 57 USPQ 117. Furthermore, the prior art does disclose exact tensile strengths.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Alexandra Elve whose telephone number is 571-272-1173. The examiner can normally be reached on 7:30-4:00 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1742. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

March 17, 2008.

/M. Alexandra Elve/
Primary Examiner, Art Unit 1793